



A.D. 1872, 19th SEPTEMBER. N^o 2773.

S P E C I F I C A T I O N

OF

THOMAS LOWE.

APPARATUS FOR BREATHING IN IMPURE
ATMOSPHERES.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
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Price 4d.

1873.



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Apparatus for Breathing in Impure Atmospheres.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Thomas Lowe at the Office of the Commissioners of Patents, with his Petition, on the 19th September 1872.

I, THOMAS LOWE, of Bolton, in the County of Lancaster, do hereby
5 declare the nature of the said Invention for “**IMPROVED APPARATUS FOR FACILITATING BREATHING IN IMPURE ATMOSPHERES,**” to be as follows:—

This Invention is designed for the purpose of affording the means of breathing pure air to persons who have occasion to enter mines containing fire-damp or other deleterious gases, or into wells, sewers,
10 gasometers, brewers’ vats, or other places or vessels containing noxious gases, or where the air is otherwise in such an impure state as to be unfit for breathing, and will also be found exceedingly useful in several chemical operations where dangerous or offensive gases are evolved, and also in grinding and other manufacturing operations to prevent the
15 emery or metallic or other dust from being drawn into the lungs.

The apparatus consists of a partial mask of leather or other suitable substance made to cover the mouth and nose and close the nostrils, and is fastened by means of a strap and buckle or other similar contrivance.

Lowe's Improved Apparatus for Breathing in Impure Atmospheres.

The inner side of this partial mask is provided with a short flattened tube connected to two branch pipes furnished with valves opening in opposite directions, one of such branch pipes being connected with a long elastic tube leading to the supply of pure air.

The valves are so constructed and arranged that upon placing the flattened tube in the mouth and compressing the nostrils, the play of the lungs will at each inspiration draw in the pure air through the elastic tube, the valve in the branch pipe of which opens only inwards, and upon each expiration will force out the vitiated air from the lungs through the other branch pipe, the valve in which opens only outwards, and thus the breathing of pure air under the above mentioned circumstances is facilitated. 5 10

LONDON:

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Printers to the Queen's most Excellent Majesty. 1873.

